



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0270; Project Identifier AD-2021-00352-T; Amendment 39-21508; AD 2021-08-14]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all The Boeing Company Model 737-300, -400, and -500 series airplanes. This AD was prompted by a flap synchro wire failure that may go undetected by the autothrottle (A/T) computer. This AD requires repetitive BITE (built-in test equipment) tests of the A/T computer to detect a flap synchro wire failure, and corrective action if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0270.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0270; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for the Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Jeffrey Palmer, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5351; email: Jeffrey.W.Palmer@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA previously issued AD 2000-23-34, Amendment 39-12007 (65 FR 75595, December 4, 2000) (AD 2000-23-34), which applies to all Boeing Model 737-300, -400, and -500 series airplanes, and requires replacing the existing A/T computer with a new, improved A/T computer that included an asymmetric cruise thrust monitor.

On January 9, 2021, a Model 737-500 series airplane operated by Sriwijaya Air was involved in an accident on a flight from Jakarta, Indonesia. There were 62 fatalities. During the ongoing accident investigation, Boeing reported that a flap synchro wire failure may go undetected by the A/T computer on the affected airplanes. Further investigation has revealed that the design update for the A/T computer required by AD 2000-23-34 does not properly account for a possible latent failure of the flap position sensor, which is one data component needed to provide the logic necessary for the asymmetric cruise thrust monitor to operate. Failure of the asymmetric cruise thrust monitor to engage during a large thrust asymmetry event could result in loss of control of the airplane. At this time, the preliminary data of the ongoing accident investigation shows that it is highly unlikely that the accident resulted from the latent failure of the flap synchro wire. However, the FAA has determined that the unsafe condition identified in this AD could exist or develop in Model 737-300, -400, and -500 series airplanes, and that this AD is therefore necessary to address the identified unsafe condition.

The FAA has confirmed that accomplishment of the applicable BITE test in the existing airplane maintenance manual (AMM) detects the flap synchro wire failure. This test is currently not required to be performed repetitively, leading to a potential latent failure if the test is not performed regularly, which will be required by this AD.

Model 737-100 and -200 series airplanes are not affected by this AD due to an A/T design difference that is not subject to the identified unsafe condition.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021. This service information specifies procedures for performing an A/T computer BITE test, "A/T BITE TEST LRU INTERFACE," and corrective actions to repair defects. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

AD Requirements

This AD requires accomplishing the actions specified in the service information already described, except as discussed under "Differences Between this AD and the Service Information."

Differences Between this AD and the Service Information

Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021, specifies a compliance time of 250 flight hours for the initial BITE test. However, this AD requires the initial BITE test within 250 flight hours or 2 months after the effective date of this AD, whichever occurs first, to ensure that airplanes with low utilization rates are addressed in a timely manner.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking then.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because failure of the asymmetric cruise thrust monitor to engage during a large thrust asymmetry event could result in loss of control of the airplane. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0270 and Project Identifier AD-2021-00352-T” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Jeffrey Palmer, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5351; email: Jeffrey.W.Palmer@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 143 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
BITE test	1 work-hour X \$85 per hour = \$85 per test	\$0	\$85 per test	\$11,220 per test

The FAA has received no definitive data on which to base the cost estimates for the on-condition corrective actions specified in this AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2021-08-14 The Boeing Company: Amendment 39-21508; Docket No. FAA-2021-0270; Project Identifier AD-2021-00352-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 737-300, -400, and -500 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 22, Auto flight.

(e) Unsafe Condition

This AD was prompted by a flap synchro wire failure that may go undetected by the autothrottle (A/T) computer. The FAA is issuing this AD to address failure of the flap position sensor, which could result in failure of the asymmetric cruise thrust monitor to engage during a large thrust asymmetry event, and loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) BITE Test

Within 250 flight hours or 2 months after the effective date of this AD, whichever occurs first: Perform the applicable A/T computer BITE (built-in test equipment) test, “A/T BITE TEST LRU INTERFACE,” and before further flight do all applicable corrective actions, in accordance with paragraphs 1. through 5. of Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021, except as provided in paragraph (h) of this AD. Repeat the test thereafter at intervals not to exceed 2,000 flight hours.

(h) Clarification of Service Information Specifications

Although paragraph 1. of Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021, specifies to prepare the airplane for BITE testing “using the reference /A/, AMM 22-04-00 or 22-04-10, paragraph 3 and 4 as necessary,” this AD does not require using that service information to accomplish those steps, but operators may refer to that information for guidance on the procedures.

(i) Reporting

Although Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021, specifies to report test results, this AD does not require any report.

(j) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R1), dated March 23, 2021.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in Related Information. Information may be emailed to 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(l) Related Information

(1) For more information about this AD, contact Jeffrey Palmer, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5351; email: Jeffrey.W.Palmer@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (4) of this AD.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Multi-Operator Message MOM-MOM-21-0145-01B(R2), dated March 30, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on April 7, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2021-10562 Filed: 5/14/2021 4:15 pm; Publication Date: 5/18/2021]